

CUTTING-EDGE TECHNOLOGY, MOST COMPREHENSIVE PORTFOLIO – THE PERFECT SOLUTION

LENOVO® THINKSERVER™ OPTIONS



THINKSERVER PROCESSORS FOR INCREASED PERFORMANCE

New Intel® Xeon® 5500 Series processors feature Intel's latest innovation in microprocessor architecture. Intel® Hyper-Threading Technology along with Intel® Turbo Boost Technology increases performance of multi-threaded workloads. It automatically allows processor cores to run faster than the base operating frequency.

To boost your system's performance for advanced applications and virtualization, make sure you have enough horse-power with dual processors to fully engage your ThinkServer solution.

- Supports Intel® Xeon® 5500 Series processors (1.86Ghz to 2.53Ghz)

FEATURES:

- Dynamically managed cores - High efficiency
- Simultaneous Multi-Threading (SMT) - Increased productivity
- Integrated DDR3 memory controller - Maximum performance
- Intel® QuickPath Interconnect - Increased bandwidth

THINKSERVER MEMORY FOR LOW- POWER CONSUMPTION & RELIABILITY

ThinkServer DDR3 memory is the next generation of SDRAM memory that enables high I/O data transfer rates through increased peak bandwidth (1333 MHz) and reduces power consumption over DDR2 technology. Faster data transfer rates mean higher performance, and with DDR3 memory this is achieved without straining the system's power needs. Also, with Nehalem class processors, each CPU can support a dedicated set of DIMMs. ThinkServer systems allow as many as 16 DIMMs to be installed in a single server.

- Three Options Available (1GB, 2GB, and 4GB)

FEATURES:

- Advanced ECC (2GB, 4GB)
- Higher bandwidth performance (1333 Mhz)
- PC3-10600 Registered DIMMs
- Low 1.5V Input Voltage gives a power consumption reduction of 30% over DDR2

THINKSERVER HARD DRIVE OPTIONS FOR PERFORMANCE STORAGE

The 2.5-inch small form factor hard disk drives are designed to deliver breakthrough performance in a smaller footprint. These options help enable the creation of high-density ThinkServer systems that provide the ultimate solution for virtualization.

- Four ThinkServer SAS 6 Gbps (SAS 2.0) HDDs
 - 73GB and 146GB 15K RPM
 - 146GB and 300GB 10K RPM
- One ThinkServer SATA 3 Gbps (SATA 2.0) HDD
 - 300GB 10K RPM

FEATURES:

- Small form factor (2.5-inch)
- Capable of 6 Gbps performance (SAS 2.0)
- High I/O per second (SAS 2)
- High performance and capacity (SATA 2.0)

THINKSERVER READY OPTIONS – COMPREHENSIVE THIRD PARTY OPTIONS

ThinkServer Ready Options cover the entire spectrum of server options to fully scale and enable your ThinkServer solution to meet all of your needs.

SOLUTIONS FOR:

- Systems Management
- Advanced RAID and Host Bus Adapters
- Rack Enclosures and Rack Power
- Networking (LAN)
- SAN Connectivity (iSCSI, Fiber Channel)
- Data Backup (LTO / DDS / RDX Tape)



ThinkServer™ Ideas

Easy to Use
Easy to Install
Easy to Expand
Easy to Maintain

lenovo®

NEW WORLD. NEW THINKING.™



THINKSERVER OPTIONS – COMPLETING YOUR PERFECT SOLUTION

When configuring your ThinkServer solution, it is very important to understand your system's needs to fully take advantage of the performance and throughput of ThinkServer solutions. Here are some tips to keep in mind when building your server solution.

RAID – PROTECTING YOUR DATA

- When configuring for strong data protection through advanced RAID solutions, at least three hard drives are required to fully take advantage of advanced RAID (i.e. RAID 5)

VIRTUALIZATION – SOLUTION IN A BOX

- Virtualization provides the huge benefit of reducing total cost of ownership (TCO)
- It's crucial to ensure your ThinkServer is configured to provide the horse-power and storage expansion for the best virtualization solution
- Dual-processor ThinkServer systems provide a maximum of 12 Hard Drive bays and 96GB of Memory for the ThinkServer RD220 – plenty of processing power, storage, and memory for virtualization

“FUTURE-PROOF” – READY FOR GROWTH

As your business grows, data and performance needs will increase. To stay competitive, your IT solution needs to be ready for growth. It should also be ready for important technology transitions.

- Ready for the most important transition for server storage -ThinkServer Hard Drives are capable of 6Gbps interface performance
- ThinkServer Hard Drives also provide the best storage expansion without taking up valuable server space – new 2.5-inch slim form-factor can provide higher storage performance per volume

SMART INVESTMENTS – INCREASING VALUE AND PERFORMANCE

- Additional ThinkServer Memory will support your second processor and allow greater data reliability by taking advantage of Memory Mirroring and Memory Spare technologies
- Additional ThinkServer Hard Drives allow you to dedicate and mirror storage for operating systems and applications. This will increase your system's performance without compromising system availability – a crucial factor in making your business successful

ThinkServer™ Options			
P/N	Description	Compatibility ³	Warranty
ThinkServer Processor Options			
67Y0004	Intel® Xeon® E5502 processor (1.86 GHz) Option kit for Rack Servers	RD210, RD220	1-year ¹
67Y0007	Intel® Xeon® E5504 processor (2.00 GHz) Option kit for Rack Servers	RD210, RD220	1-year ¹
67Y0005	Intel® Xeon® E5506 processor (2.13 GHz) Option kit for Rack Servers	RD210, RD220	1-year ¹
67Y0006	Intel® Xeon® E5520 processor (2.26 GHz) Option kit for Rack Servers	RD210, RD220	1-year ¹
67Y0096	Intel® Xeon® E5540 processor (2.53 GHz) Option kit for Rack Servers	RD210, RD220	1-year ¹
ThinkServer Memory Options			
67Y0014	ThinkServer 1GB PC3-10600 DDR3 1333 MHz RDIMM	RD210, RD220	3-year
67Y0015	ThinkServer 2GB PC3-10600 DDR3 1333 MHz RDIMM ²	RD210, RD220	3-year
67Y0016	ThinkServer 4GB PC3-10600 DDR3 1333 MHz RDIMM ²	RD210, RD220	3-year
ThinkServer Hard Drive Options			
67Y0115	ThinkServer 73 GB 6.0 Gb/s 15K 2.5" SAS SFF HS	RD210, RD220	3-year
67Y0116	ThinkServer 146GB 6.0 Gb/s 10K 2.5" SAS SFF HS	RD210, RD220	3-year
67Y0117	ThinkServer 146GB 6.0 Gb/s 15K 2.5" SAS SFF HS	RD210, RD220	3-year
67Y0118	ThinkServer 300GB 6.0 Gb/s 10K 2.5" SAS SFF HS	RD210, RD220	3-year
67Y0002	ThinkServer 300GB 3.0 Gb/s 10K 2.5" SATA SFF HS	RD210, RD220	3-year

1. If installed in your ThinkServer, it takes the warranty of your ThinkServer system (1 or 3-year, depending on the model)

2. Support Advanced ECC

3. Options Compatibility Matrix can be found in the Server Options Guide to show compatibility by model.

 www.lenovo.com/thinkserver

THINK SAVINGS. THINK LENOVO.

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Warranty: For a copy of applicable warranties, write to: Warranty Information, Perimeter Park, 1009 ThinkPlace, Building 3, Dept. ZPYA, Morrisville, NC. 27560. Attn: Dept. ZPYA. Lenovo makes no representation or warranty regarding third-party products or services.

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